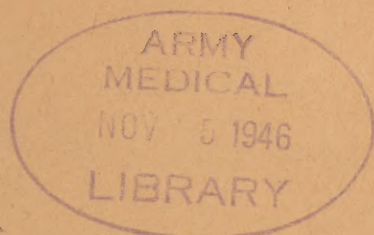


JAPANESE MEDICAL MATERIAL

PRONPTIN

297180

(p-Sulfonamide-phenyl-azo-apoquinine)



JAN 23 1947

Medical No. 241

12 July 1946

MEDICAL ANALYSIS SECTION
5250th Technical Intelligence Company
APO 500

12 July 1946

PRONPTIN

(p-Sulfonamide-phenyl-azo-apoquinine)

SOURCE: Tokyo, Japan.

IMPORTANCE: Not previously reported. A sulfonamide congener of sulfanilamide and apoquinine containing an azo linkage. Not listed in available standard American references.

DESCRIPTION: Five ampuls of clear glass, each containing 20 cc of and orange-brown solution, are packaged in a cardboard container. A dark brown heavy sediment, probably the result of decomposition, is present in each ampul.

SUMMARY OF GENERAL INFORMATION: Pronptin is an injectable solution containing 0.25% of sulfanilamido-azo-apoquinine in distilled water. No chemical formula for the active ingredient is recorded.

Pronptin original solution contains 5% of sulfanilamido-azo-apoquinine and 0.75% of caffeine in ethylene glycol. For use, a 2 cc ampul is diluted to 20 cc with distilled water. The glycol is apparently used as a solvent to permit a higher concentration of the active medicinal.

Translations have been made of two papers submitted by the manufacturer to the Drug Section, Welfare Division of the Japanese Home Ministry. These are embodied in this report and include the method of manufacture of the product, its dosage, directions, indications and manufacturer.

A thorough search of the current scientific literature is necessary to determine whether this chemical compound has been previously synthesized and whether it may be expected to possess any special pharmacological properties. Evidence concerning sulfonamide compounds containing an azo group ($-N \equiv N-$) is somewhat contradictory.

According to Goodman and Gilman (The Pharmacological Basis of Therapeutics, 1941, p. 1004-5), the azo linkage of Prontosil is unnecessary for bactericidal effects, Prontosil being split in the tissues at this linkage to yield sulfanilamide. The azo dye Prontosil is thus antibacterial by virtue of yielding sulfanilamide. These authors state however that "nevertheless, there is some evidence that in certain of the complex azo dyes the azo linkage per se may play an important role in drug action". This opinion is confirmed by Spink (Sulfanilamide and Related Compounds in General Practice, 1943, p. 13), who states that in 1919 Heidelberger and Jacobs "observed that certain azo dyes, including sulfanilamide coupled with hydrocupreine", are bactericidal.

PHOTOGRAPHS:

- Figure 1 - Closed package of Pronptin
- Figure 2 - Open package of Pronptin
- Figure 3 - Pronptin literature
- Figure 4 - Additional Pronptin literature



PRONPTIN

東邦新薬株式会社

(品名) プロンプテン 静脈注射用

(化学名) ギルファニールアミドアゾアポヒニンノ水溶液

(成分分量) 百分中 ギルファニールアミドアゾアポヒニン

0.25 瓦

蒸溜水

9.75 瓦

(製造法) プロンプテン前項ノ割合ヲ以テ水溶液トシテ使用ニ便トスルモナリ

一 アンプリ 2000 トテン 熔閉 菌入

(用法及用量) 一日一回又ハ朝夕一回宛血管内注射

(効能) 連鎖状球菌性疾患ニ効アリ

痘毒、化膿性疾患、産褥熱、淋疾、腎盂、膀胱炎等

Figure 4- Promptin Literature

Promptin
ORIGINAL SOLUTION

東邦新薬株式会社

(品名) プロンプチン 静脈注射用原液

(成分分量) 百分中、スルファニルアミド、アゾ、アポヒニン 五〇瓦

カフエイン 〇・七五瓦 エテレングリコール 九四・二五瓦

(製造法) 塩酸キニーネ 百分中、五分、ブロム又ハタロル水素水ヲ以テ二十時間加熱スルトキ

「アポヒニン」ヲ生ズ 此「アポヒニン」 300瓦ヲ苛性曹達 250瓦水中ニ溶解シ攝氏六

度保チ之ニ別ニ「アミロフェニル」スルファミド」ヲ塩酸 200瓦、重硝酸曹達 240瓦ヲ以テ

「アゾ」化シタルモノヲ加ヘ反應中、性トスルキハ塩ニ「スルファニルアミド」アゾ、アポヒニンヲ生ズ、石トシ

ニテ再結晶シカフエイン」添加ノモトニ「エテレングリコール」ニ溶解セシメ製法特許一五〇、七九八号

(用法及用量) 一日一回又ハ朝夕一回宛血管注射トス

「アンプロ」200ml用時蒸餾水ニ稀釋シ200ml血管注射スルモノトス

(効能) 連鎖状、球菌状疾患ニ効アリ

丹毒、化膿性疾患、産褥熱、淋疾、腎盂、膀胱炎等

TRANSLATION OF INFORMATION OBTAINED FROM DRUG SECTION,
WELFARE OFFICE, JAPANESE GOVERNMENT

PRONPTIN

Toho New Drugs Co., Ltd.
Tokyo, Japan

NAME: Pronptin intravenous injection.

CHEMICAL NAME: Aqueous solution of Sulfanilamido-azo-apoquinine.

INGREDIENTS AND QUANTITY: Sulfanilamido-azo-apoquinine ~ 0.25 gm.
Distilled water ~ 99.72 gm.

METHOD OF PREPARATION: Mix the above ingredients, enclose 20 cc.
in each ampul, seal and sterilize.

DIRECTIONS AND DOSAGE: Inject intravenously once a day or once
in the morning and once at night.

INDICATIONS: Effective in streptococcus infections.
Erysipelas
Suppurative diseases
Puerperal fever
Gonorrhea
Cystitis
Pyelitis

TRANSLATION OF INFORMATION OBTAINED FROM DRUG SECTION,
WELFARE OFFICE, JAPANESE GOVERNMENT

Promptin Original Solution

Toho New Drugs Co., Ltd.
Tokyo, Japan

NAME: Promptin intravenous injection (Original solution).

INGREDIENTS AND QUANTITY:

Sulfanilamido-azo-apoquinine	- 5.0 gm.
Caffeine	- 0.75 gm.
Ethylene glycol	- 94.25 gm.

METHOD OF PREPARATION: Heat 100 parts of quinine hydrochloride with 500 parts of Hydrobromic acid or Hydrochloric acid for 24 hours. Dissolve the 300 gm. of apoquinine that is produced in a mixture of 750 gm. of caustic soda in 30 Liters of water, keeping the temperature at 6° C. Add 200 gm. of aminophenylsulfamide that has been diazotized with 1200 gm. of HCl and 240 gm. of Sodium Nitrite. When this is neutralized, sulfanilamido-azo-apoquinine is produced. Recrystallize from acetone, add caffeine and dissolve in ethylene glycol.

Manufacturing Process Patented No. 150, No. 796.

DIRECTIONS AND DOSAGE: Intravenously once daily or once in the morning and once at night.

Each ampul contains 2 cc. Dilute to 20 cc. with distilled water before using.

INDICATION:

Streptococcus and staphylococcus infections

Erysipelas

Suppurations

Puerperal fever

Gonorrhea

Pyelitis

Cystitis